

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

ANTON J. KRYKA ET AL.

Serial No.: 10/714,121

Filed: November 14, 2003

For: INDEX FILE FOR USE WITH IMAGE DATA IN A
DOCUMENT PROCESSING SYSTEM

Attorney Docket No.: PM060B

Group Art Unit: 2166

Examiner: Joon H. Hwang

PRE-APPEAL BRIEF REQUEST FOR REVIEW

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Commissioner for Patents
U.S. Patent & Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the final office action mailed on March 8, 2007, Applicants request review of the legal and factual basis of the rejections prior to the filing of an appeal brief. A notice of appeal is being filed together with this request for review.

Claims 2-49 are pending in this application. Claims 2-49 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. (U.S. Pub. No. 2004/0015566) in view of Lal (U.S. Patent No. 6,684,204). The invention is believed to be patentable, and the rejections are believed to be clearly improper, and based upon clear error.

The invention relates to document processing systems, and to storing and retrieving individual images in a document processing system. The invention involves a document processing system having an improved image-indexing scheme.

Claim 49, for example, recites a document processing system having at least one computer running system software that interfaces with transport hardware to provide document control, and capture document images and document data in various formats. An image file stores a plurality of captured document images for subsequent retrieval on an individual basis. The system includes a computer readable storage medium storing the system software. The system software on the medium further comprises instructions for indexing the image file by creating an index file. The index file contains indexing data for the captured document images. The medium further comprises a document-type definition file including a plurality of elements. In accordance with the invention, the index file is in the form of a self-describing document in accordance with the document-type definition file. The self-describing document includes indexing data for the captured document images to allow subsequent retrieval of the captured document images on an individual basis.

The Examiner acknowledges Anderson's failure to disclose an index file in the form of a self-describing document, as claimed, and relies on Lal as a secondary reference. Applicants believe that Lal clearly fails to overcome the shortcomings of the primary reference, Anderson, and that Anderson and Lal still fail to suggest the claimed invention.

Lal is about indexing an XML document collection, but clearly does not describe an index file in the form of a self-describing document as claimed. Lal describes conducting a search on a network which includes documents having a plurality of tags. As described by Lal, and as illustrated in Figure 7, Lal is about indexing XML documents. More specifically, Lal is about indexing a collection of XML documents 110 by creating hash table index 115 and tree index 116. That is, Lal is teaching the creation of indexes for an XML

document collection. There is clearly no suggestion of an index file in the form of a self-describing document. Lal illustrates a hash table index in Figure 8, and illustrates a tree index in Figure 9. These indexes in Lal are described at Col. 5, ll. 7-35, and there is clearly no teaching of an index file in the form of a self-describing document.

The Examiner states that Lal discloses two types of indexes, a hash table index and a tree index. The Examiner goes on to state that, therefore, Lal teaches an index file in the form of a self-describing document. In this regard, Applicants respectfully disagree. The Examiner seems to be stating that because the hash table index and tree index are generated based on the XML documents (and DTD files), the index files themselves are therefore in the form of self-describing documents as claimed. Applicants respectfully disagree, and believe that the Examiner's conclusion that the index files in Lal are in the form of self-describing documents is clear error. Because the index files in Lal are clearly not in the form of self-describing documents, an essential element required for a prima facie rejection has been omitted.

Both the hash table index and the tree index, as illustrated in Lal, are object or data structures containing pointers to elements in a document object model, are not documents, and are certainly not self-describing documents. The claims specifically recite an index file in the form of a self-describing document. Lal describes table index and tree index structures containing pointers; however, it is clear error to conclude that these object or data structures are self-describing documents.

In more detail, the hash table index, as shown in Figure 8, is a flat index of pointers to elements in the document object model. The hash table index does contain the names of tags that occur in the XML documents; however, the hash table is only a table of names and pointers (that is, an object or data structure containing pointers), and is certainly not a document let alone the fact that the claims specifically require a self-describing document.

Further, with regard to the tree index, the tree index does contain the names of tags that occur in the XML documents, and does reflect the basic structure of the XML document and the document type definition associated with the XML document. Nevertheless, the tree index is simply a tree index containing pointers (that is, an object or data structure containing pointers). The tree index is certainly not a document let alone the fact that the claims specifically require a self-describing document.

The hash table index and the tree index do function as indexes for XML documents. However, the hash table index and the tree index themselves are not documents, and are certainly not in the form of self-describing documents. The fact that the indexes contain the names of tags that occur in the XML documents, and in the case of the tree index, maintain the context of the tags, does not result in the conclusion reached by the Examiner that these indexes are themselves in the form of self-describing documents. Put another way, the hash table index and tree index do not suggest an index file in the form of a self-describing document. The hash table index and tree index, as illustrated, are in the form of object or data structures – not documents, and clearly not self-describing documents. Even if there were a suggestion to serialize the hash table index, or the tree index, to create a byte stream for a file, there is no suggestion that the resulting byte stream (file) would represent the index file in the form of a self-describing document or even in the form of a document at all. Note that Applicants are not merely attacking the references individually, Applicants are pointing out that the combination of the references still fails to suggest all claim limitations.

The Examiner maintains the position that Lal discloses indexes containing XML tags and reflecting the basic structure of an XML document. Applicants respectfully again point out that even to the extent that the tree index does contain the names of tags that occur in the XML documents, and does reflect the basic structure of an XML document and the document type definition associated with the XML document, the tree index is still simply a tree index containing pointers (that is, an object or data structure containing pointers). The

tree index is certainly not a document let alone the fact that the claims specifically require a self-describing document.

In any event, Applicants believe that there is no motivation to combine the references. In the final action, the Examiner states that Anderson discloses that the captured data are in XML, but does not explicitly disclose indexing of XML data. The Examiner goes on to state that Lal teaches indexing of XML data and maintains the rejection.

Applicants respectfully point out that the claimed invention is not about indexing of XML data, but rather the claimed invention is about indexing a plurality of captured document images that are stored in an image file for subsequent retrieval on an individual basis, wherein the index file is in the form of a self-describing document. That is, the Examiner is making statements about Lal's indexing of XML data; however, the invention is not about the indexing of XML data.

It appears that the Examiner is stating that Anderson could be modified in view of Lal to index captured data that are in XML. Even so, such modification still does not achieve the claimed invention. Applicants respectfully point out that the claims recite an index file for indexing captured document images stored in an image file, as opposed to merely reciting the indexing of XML data.

More generally, there is no reason why a person of ordinary skill in the art would have combined the prior art elements in the manner claimed. It is not obvious to combine the prior art elements in the manner claimed. After all, neither reference teaches an index file in the form of a self-describing document. Further, Lal is only describing the indexing of XML data and there is no reason why a person of ordinary skill in the art, in light of the level of skill in the art and the prior art, would arrive at the claimed invention.

For the reasons given above, claims 2-49 are believed to be in condition for allowance. Applicants respectfully request that the panel members review the rejections in the application, and find that the application is not in condition for appeal.

Respectfully submitted,

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